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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,514	04/13/2006	Gerald Lauer	2003P12200WOUS	3910
22116	7590	09/30/2008	EXAMINER	
SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830			BASICHAS, ALFRED	
ART UNIT	PAPER NUMBER	3749		
MAIL DATE	DELIVERY MODE	09/30/2008 PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,514	<b>Applicant(s)</b> LAUER, GERALD
	<b>Examiner</b> Alfred Basichas	<b>Art Unit</b> 3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 July 2008.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 22-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 22-40 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application  
6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 22, 23, 25-32, and 34-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahara (5,450,725), which shows all of the claimed limitations including, among other things, a method and apparatus for a combustion of a fuel in a combustion chamber, comprising: mixing the fuel and a combustion air C before entry into the combustion chamber 26,27; discharging a first portion of the mixture into the combustion chamber (leftmost port 56) such that the first portion circulates in the combustion chamber 26; adding a further fuel to the circulating mixture A until the circulating mixture ignites; and injecting a second portion of the mixture (middle and rightmost ports 56) into the combustion chamber generally perpendicular to a direction of a hot combustion gas flowing away from the circulating mixture such that the second portion mixes with the hot combustion gas and combusts prior to exiting from the combustion chamber (see at least fig. 2), wherein a ratio of the combustion air to the fuel mixed before entry into the combustion chamber is higher than a ratio of the

combustion air to the fuel after adding the further fuel in the combustion chamber (inherent that adding fuel to an air fuel mixture would reduce the air to fuel ratio), wherein the fuel is a gas or liquid fuel (see at least col. 10, lines 40-50), wherein the circulating mixture circulates in a peripheral region of the combustion chamber (see at least fig. 2), wherein the combustion chamber is cylindrical or annular in shape (see at least figs), wherein the first and second portions are discharged into the combustion chamber in an radial manner via physically separated nozzles and as a common stream which is divided within the combustion chamber (see at least fig. 2), wherein the further fuel A is discharged into the combustion chamber in an axial manner (see at least fig.2), wherein between 5% to 25% of a total gas mass of the combined fuel and combustion air is supplied to circulating mixture at a time (see at least col. 2, lines 38-50) or, wherein between 10% to 20% of a total gas mass of the combined fuel and combustion air is supplied to circulating mixture at a time.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.  
2. Ascertaining the differences between the prior art and the claims at issue.  
3. Resolving the level of ordinary skill in the pertinent art.  
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 24 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara (5,450,725) in view of Voorheis (4,629,416). Takahara discloses substantially all of the claimed limitations as discussed above. Nevertheless, Takahara does not specifically recite that the first and second portions are discharged into the combustion chamber via a body arranged centrally in the combustion chamber. Voorheis teaches a body 20 arranged centrally in the combustion chamber 10 (see at least fig. 1) to convey fuel thereto. Voorheis teaches that such an arrangement provides for enhanced mixing (see at least col. 2, lines 6-11). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of invention to incorporate the fuel tube arrangement taught by Voorheis into the invention disclosed by Takahara, so as to provide for enhanced mixing.

***Response to Arguments***

6. Applicants' arguments with regard to the rejected claims have been considered, but are not deemed fully persuasive.

a. Applicant asserts that reference letter C is not combustion air, but rather the main fuel mixed with compressed air. Applicant is correct. The claims recite "mixing the fuel and a combustion air", which is clearly shown by the reference letter C.

b. Applicant further asserts that the three port sections 56 are not the "first-stage", "second-stage", and "third-stage" fuels. This is irrelevant, as the claims do not recite these terms of art, but rather the claims recite "first portion", "second portion", and "third-portion" of the fuel. Applicant is reminded that the claim terms are afforded their broadest reasonable interpretation. As such, portions of a whole are not equivalent to stages and their specific order of execution.

c. Finally, applicant asserts that the examiner fails to identify adding a further fuel. The reference letter A was and is recited in the rejection above as representing that "further fuel". A clearly represents a number a fuel portions as clearly shown in at least fig. 2. In at least col. 8, lines 4-7, this further added fuel is recited as "pilot fuel A".

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alfred Basichas whose telephone number is 571 272 4871. The examiner can normally be reached on Monday through Friday during regular business hours.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center telephone number is 571 272 3700.

October 2, 2008

/Alfred Basichas/  
Primary Examiner, Art Unit 3749

<b>Application Number</b> 	<b>Application/Control No.</b>	<b>Applicant(s)/Patent under Reexamination</b>
	10/575,514	LAUER, GERALD
	<b>Examiner</b>	<b>Art Unit</b>
	Alfred Basichas	3749